

**What is claimed is:**

1. A method for encoding a moving video signal comprising a plurality of images, each image having a plurality of pixels, said method comprising steps of:

generating a sum signal and a difference signal of images for every two frames;

deciding an encoding bit rate for the sum signal and the difference signal based on the sum signal and the difference signal; and

encoding the sum signal and the difference signal respectively based on the encoding bit rate.

2. The method according to claim 1, wherein the step of deciding generates a control signal to be used for the encoding, the control signal representing a proportion of the encoding bit rate for the sum signal and the different signal.

3. The method according to claim 1, wherein the step of deciding decides the encoding bit rate on the basis of a variation in signal level of each pixel of the sum signal and a variation in signal level of each pixel of the different signal.

4. The method according to claim 1, wherein said step of encoding performs the encoding on any one of the sum signal and the different signal and then performs the encoding on the other signal.

5. The method according to claim 1, wherein the step of deciding decides the encoding bit rate on the basis of a proportion of a data quantity generated by encoding the sum signal and a data quantity generated by encoding the different signal.

6. The method according to claim 1, further comprising a step of adjusting a level of any one of the sum signal and the different signal.

7. An apparatus for encoding a moving video signal comprising a plurality of images, each image having a plurality of pixels, said apparatus comprising:

a generating element for generating a sum signal and a difference signal of images for every two frames;

a deciding element for deciding an encoding bit rate for the sum signal and the difference signal based on the sum signal and the difference signal; and

an encoding element for encoding the sum signal and the difference signal respectively based on the encoding bit rate.

8. The apparatus according to claim 7, wherein the deciding element generates a control signal to be used for the encoding element, the control signal representing a proportion of the encoding bit rate for the sum signal and the different signal.

9. The apparatus according to claim 7, wherein the deciding element decides the encoding bit rate on the basis of a variation in signal level of each pixel of the sum signal and a variation in signal level of each pixel of the different signal.

10. The apparatus according to claim 7, wherein said encoding element performs the encoding on any one of the sum signal and the different signal and then performs the encoding on the other signal.

11. The apparatus according to claim 7, wherein the deciding element decides the encoding bit rate on the basis of a proportion of a data quantity generated by encoding the sum signal and a data quantity generated by encoding the different signal.

12. The apparatus according to claim 7, further comprising an adjustment element for adjusting a level of any one of the sum signal and the different signal.

13. A computer program operatable by a computer, the program comprising instruction data to be carried out by the computer, the instruction data comprising:

data to instruct generating a sum signal and a difference signal of images for every two frames;

data to instruct deciding an encoding bit rate for the sum signal and the difference signal based on the sum signal and the difference signal; and

data to instruct encoding the sum signal and the difference signal respectively based on the encoding bit rate.

14. The program according to claim 13, wherein the data to instruct deciding includes generating a control signal to be used for the encoding, the control signal representing a proportion of the encoding bit rate for the sum signal and the different signal.

15. The program according to claim 13, wherein the data to instruct deciding includes deciding the encoding bit rate on the basis of a variation in signal level of each pixel of the sum signal and a variation in signal level of each pixel of the different signal.

16. The program according to claim 13, wherein said data to instruct the encoding instructs encoding any one of the sum signal and the different signal and then instructs encoding the other signal.

17. The program according to claim 13, wherein the data to instruct

deciding includes deciding the encoding bit rate on the basis of a proportion of a data quantity generated by encoding the sum signal and a data quantity generated by encoding the different signal.

18. The program according to claim 13 further comprising data to adjust a level of any one of the sum signal and the different signal.

19. A method for decoding encoded data by encoding a moving video signal comprising a plurality of images, each image having a plurality of pixels, the encoded data comprising an encoded sum signal generated by encoding a sum signal of images and an encoded different signal generated by encoding a different signal of images, the sum signal and the difference signal of images being generated for every two frames, the method comprising steps of:

decoding the encoded data to generate a decoded sum signal and a decoded different signal;

generating two-frame images using the decoded sum signal and the decoded different signal; and

outputting the two-frame images in a prescribed order to generate a decoded moving video signal.

20. An apparatus for decoding encoded data by encoding a moving video signal comprising a plurality of images, each image having a plurality of pixels, the encoded data comprising an encoded sum signal generated by encoding a sum signal of images and an encoded different signal generated by encoding a different signal of images, the sum signal and difference signal of images being generated for every two frames, the apparatus comprising:

an element for decoding the encoded data to generate a decoded sum signal and a decoded different signal;

an element for generating two-frame images using the decoded sum signal and the decoded different signal; and

an element for outputting the two-frame images in a prescribed order to generate a decoded moving video signal.

21. A computer program operatable by a computer, the program comprising instruction data to be carried out by the computer, the instruction data including decoding encoded data by encoding a moving video signal comprising a plurality of images, each image having a plurality of pixels, the encoded data comprising an encoded sum signal generated by encoding a sum signal of images and an encoded different data generated by encoding a different signal of images, the sum signal and difference signal of images being generated for every two frames, the instruction data further comprising:

data to instruct decoding the encoded data to generate a decoded sum signal and a decoded different signal;

data to instruct generating two-frame images using the decoded sum signal and the decoded different signal; and

data to instruct outputting the two-frame images in a prescribed order to generate a decoded moving video signal.